

Nathan S. Mann, M.P.S.

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EDUCATION

University of Maryland; College Park, MD

December 2023 | GPA: 4.0

Master of Professional Studies in Clinical Psychological Science

Master's Capstone Project: "Proposal for a Randomized Control Trial Comparing Dialectical Behavioral Therapy to Cognitive Behavioral Therapy for Psychosis in the Treatment of Schizophrenia"

Advisor: Jack J. Blanchard, Ph.D.

- This research proposal reviewed the literature on cognitive behavioral therapy for psychosis (CBTp) and dialectical behavioral therapy (DBT) in the treatment of psychotic spectrum disorders. This detailed the full procedure for which I proposed the investigation of negative symptom reduction using DBT against the gold standard CBTp. This project also looked at global functioning and emotion regulation as critical factors in and outcomes of treatment.

Ball State University; Muncie, IN

May 2022 | GPA: 4.0/4.0

Bachelor of Science in Psychological Science

Minors: Spanish, Interpersonal Relations

Summa Cum Laude

Academic Honors in Writing (1 of 10 students selected)

HONORS AND SCHOLARSHIPS

Three Minute Talk Competition Finalist: (Fall 2024)

NIH Post-Baccalaureate Intramural Research Training Awardee: (2023-present)

Senior of the Year Nominee (based on academic achievement and community involvement): Spring 2022

Summa Cum Laude: Spring 2022

Dean's List: Fall 2018-Spring 2022; Fall 2022-Fall 2023

Psi Chi International Honorary Member: Spring 2019-present

Presidential Scholarship: \$3,000/year for four years

RESEARCH EXPERIENCE

NATIONAL INSTITUTE OF MENTAL HEALTH, BETHESDA, MD

CLINICAL AND TRANSLATIONAL NEUROSCIENCE BRANCH – SECTION ON INTEGRATIVE NEUROIMAGING

Post-Baccalaureate Intramural Research Training Award (IRTA) Research Fellow under

Karen F. Berman, M.D. & Peter J. Schmidt, M.D.

June 2023-Present

Responsibilities:

- *Collect and analyze MRI and fMRI data on adults with schizophrenia and related psychotic disorders during a double-blind, medication withdrawal study.
- Assist with PET imaging and process volumetric data using bash shell scripts for the protocol studying adults with schizophrenia and healthy adult volunteers.
- *Independently administer and score neuropsychological tests – e.g., DAS-II, WASI-II, KBIT-2, EVT-2, PPVT-4, D-KEFS, WRAT, WAIS-R, NIH Toolbox Cognitive batteries – to individuals with schizophrenia, Williams syndrome, 7q11.23 Duplication syndrome, healthy children ages 8-18, and healthy adults ages 18-50.
 - Write neuropsychological reports comparing working memory, story memory, verbal, spatial, and non-verbal reasoning ability scores – as well as estimated full-scale-IQ-4 – for individuals with schizophrenia and related psychotic disorders during the double-blind, medication control study.
 - Present neuropsychological reports to the research team and nursing staff regarding score differences and careful interpretations – first approved by a clinical neuropsychologist.

- Enter and organize all participant standard scores into databases for their respective protocols
- Collect and analyze structural and functional MRI data on children and adults with Williams syndrome and 7q11.23 Duplication syndrome.
- Collect and analyze structural and fMRI data on children ages 8-18 to elucidate the effects of puberty on neurodevelopment.
- *Coordinate the scheduling of procedure dates for schizophrenia inpatients and healthy controls within the schizophrenia protocol.
- Screen potential healthy adult participants for eligibility and assist them during their initial visit.
- Process participants' blood to obtain DNA samples in a wet lab setting; send blood tubes to external site.
- Engage in weekly clinical program activities on an inpatient unit with individuals diagnosed with schizophrenia; participate in clinical lectures given by medical specialists working with inpatients.
- Work with research team to manage all data collected across 7 protocols to ensure security of private health information (PHI).

Associate Investigator for NIH protocols:

- 00-M-0085: Structural and Functional Imaging of Neuropsychiatric Patients and Normal Volunteers with 3.0 Tesla MRI and Magnetoencephalography (MEG)
- 01-M-0232: Positron Emission Tomography (PET) Scanning in Dopamine Disorders: Parkinson's Disease and Schizophrenia
- 09-M-0176: Functional Relevance of Dopamine Receptors in Healthy Controls and Patients with Schizophrenia: Characterization through [11C]NCC-112 and [18F]Fallypride Positron Emission Tomography
- 10-M-0112: Defining the Brain Phenotype of Children with 7q11.23 Copy Number Variation, Including Williams Syndrome and 7q11.23 Duplication Syndrome
- 11-M-0251: A Longitudinal Investigation of the Endocrine and Neurobiological Events Accompanying Puberty
- 89-M-0160: Inpatient Evaluation of Neuropsychiatric Patients
- 95-M-0150: A Neurobiological Investigation of Patients with Schizophrenia Spectrum Disorders and Their Siblings

Science Communication Project under the Direction of Karen F. Berman, M.D. and Daniel P. Eisenberg, M.D.

- Responsibilities: Condensed my poster presentation *LIMK1 haplotype and prefrontal working memory activation in healthy adults* into an easily digestible Three Minute Talk meant for a scientifically naïve audience, titled *A Transdiagnostic Genetic Factor in Prefrontal Cortex Engagement: The LIMK1 Gene*.

UNIVERSITY OF MARYLAND, COLLEGE PARK, MD

DEPARTMENT OF PSYCHOLOGY – LABORATORY OF EMOTION AND PSYCHOPATHOLOGY

Graduate Research Assistant under Director Dr. Jack J. Blanchard

August 2022-June 2023

- Research Focus: Deepening the understanding of negative affect and paranoid ideation in psychosis using a combination of neuroimaging and ecological momentary assessment (EMA) techniques.
- Responsibilities: Assisted the lab manager with fMRI and physiological data collection (heart rate, respiration, galvanic skin response) at the Maryland Neuroimaging Center (MNC), saved data files to lab folder on MNC computer, tracked eye movement of participants to ensure high data quality; logged participants' sleep diaries and EMA data, moved data collection forward and ensured the compliance of participants.

UNIVERSITY OF MARYLAND, COLLEGE PARK, MD

DEPARTMENT OF PSYCHOLOGY – SHACKMAN LAB OF AFFECTIVE AND TRANSLATIONAL NEUROSCIENCE

Graduate Research Assistant under Director Alexander Shackman, Ph.D

August 2022-June 2023

- **Research Focus:** Developing a more comprehensive perspective on the neurobiology underlying fear and anxiety, implementing the competing categorical and dimensional framework models and determining their neurobiological and ecological validities.
- **Responsibilities:** Assisted the co-PI with fMRI and physiological data collection (heart rate, respiration, galvanic skin response); saved data files to lab folder on MNC computer; took charge of greeting participants and assisting with pre-scan protocols; informed co-PI of issues with standard operating procedures (SOPs) to develop more comprehensive measures.

UNIVERSITY OF MARYLAND, COLLEGE PARK, MD

DEPARTMENT OF PSYCHOLOGY – SHACKMAN LAB OF AFFECTIVE AND TRANSLATIONAL NEUROSCIENCE

Mentored Independent Research Project under direction of Dr. Jason Smith, Ph.D. November 2022-April 2023

- **Research Focus:** Examining the influence of motivation and pleasure on social regulation of anxiety in individuals with psychosis using heart rate variability (HRV)
- **Responsibilities:** Cleaned and organized data using MATLAB and Microsoft Excel, assisted in the coding protocols for statistical analyses in MATLAB, assisted in restructuring the code based on errors, interpreted results, was entrusted with PHI of individuals to gather additional information from analyses, including sex identification.

BALL STATE UNIVERSITY, MUNCIE, IN

DEPARTMENT OF PSYCHOLOGICAL SCIENCE – NEUROPHYSIOLOGY AND MINDFULNESS LABORATORY

Undergraduate Research Assistant, January 2022-May 2022

PI: Dr. Nilou Lueke

- **Research Focus:** Examine how personality influences a person's response to success or failure.
- **Responsibilities:** Guided participants in the lab with instructions at each step of the process, including informed consent and debriefing statements; set up the lab materials and environment before each participant. Charted participants on excel spreadsheet and granted research credit for student participants once completed.

BALL STATE UNIVERSITY, MUNCIE, IN

DEPARTMENT OF PSYCHOLOGICAL SCIENCE

Undergraduate Honors Thesis under direction of Dr. Kristin Ritchey, Ph.D.

August 2021-May 2022

- **Research Focus:** Reducing stigma of people with schizophrenia through narrative versus report.
- **Responsibilities:** Conducted literature review, designed study, obtained IRB approval; collected, coded, and analyzed data; presented project at the Mid America Undergraduate Psychology Research Conference.
- Submitted a proposal narrative, budget narrative, and budget sheet for approval from Ball State University to fund an honor's thesis; received \$300 to fund undergraduate honors thesis – specifically, to pay participants through Amazon Mechanical Turk.

BALL STATE UNIVERSITY, MUNCIE, IN

DEPARTMENT OF PSYCHOLOGICAL SCIENCE – PSYCHOPHYSIOLOGICAL ATTENTION, COGNITION, AND EMOTION LABORATORY

Undergraduate Research Assistant under Director Dr. Stephanie Simon-Dack, Ph.D.

August 2020-May 2021

- **Research Focus:** Examine the underlying neural mechanisms associated with an intra-hemispheric inhibition.
- **Responsibilities:** Assisted in the EEG lab; independently cleaned EEG data and removed unnecessary artifacts using MATLAB; constructed flanker task experiment using EPrime software; ran participants and provided detailed instructions; led research article discussions, participated in discussions relative to graduate training and requirements.

BALL STATE UNIVERSITY, MUNCIE, IN

DEPARTMENT OF PSYCHOLOGICAL SCIENCE – APPLIED SOCIAL PSYCHOLOGY AND SLEEP LAB

Undergraduate Research Assistant under Director Dr. Michael Tagler, Ph.D.

January 2021-May 2021

- Research Focus: Examine how authors in psychological research journals construct literature reviews.
- Responsibilities: Coded data in Excel, analyzed numerous research articles relative to a set of criteria, constructed annotated bibliographies based on information gathered.

RESEARCH PRESENTATIONS

(Submitted) **Mann, N.S.**, Eisenberg, D.P., Tong, Y., Zoltick, B., Das, S., Bettina, J., Rhoads, C.A., Tietcheu, M.G., Gregory, M.D., Berman, K.F. (2025, April 25). *Striatum activation differences during monetary loss and reward anticipation in schizophrenia spectrum illness* [Poster presentation]. Society of Biological Psychiatry, Sheraton Toronto, Toronto, Canada.

(Submitted) Rhoads, C.A., Wei, S.M., Kippenhan, J.S., Gregory, M.D., Raymond, C., Kelemen, A.G., **Mann, N.S.**, Krugel, D.M.B., Nieman, L.K., Yanovski, J.A., Schmidt, P.J., Berman, K.F. (2025, April 25). *Menarche-Related Changes in Gray Matter Volume* [Poster presentation]. Society of Biological Psychiatry, Sheraton Toronto, Toronto, Canada.

Mann, N.S., Eisenberg, D.P., Tong, Y., Kippenhan, J.S., Gregory, M.D., Zoltick, B., Bettina, J., Chavannes, A.S., Rhoads, C., Berman, K.F. (2024, May 11). *LIMK1 haplotype and prefrontal working memory activation in healthy adults* [Poster presentation]. Society of Biological Psychiatry, Austin, TX, United States.

Spurney, M.A., Wei, SM., Eisenberg, D.P., Kohn, P.D., Recto, C. Wilder, I.M., **Mann, N.S.**, Schmidt, P.J., Berman, K.F. (2024, May) *[15O]-Water PET Regional Cerebral Blood Flow during Rest in Men, Naturally-Cycling Women, and Women using Oral Contraceptives* [Poster presentation]. Society of Biological Psychiatry Annual Meeting, Austin, TX, United States.

Recto, C.A., Wei, SM., Eisenberg, D.P., Kohn, P.D., Gregory, M.D., Bettina, J., Wilder, I.M., Spurney, M.A., **Mann, N.S.**, Schmidt, P.J., Berman, K.F. (2024, May) *Variations across the Menstrual Cycle and Between-Sex Differences in Presynaptic Dopamine Synthesis Capacity* [Poster presentation]. Society of Biological Psychiatry Annual Meeting, Austin, TX, United States.

Ilsley, A.K., Nash, T.A., Eisenberg, D.P., Gregory, M.D., Wright, D.S., Chavannes, A.S., **Mann, N.S.**, Rhoads, C.A., Das, S., Zoltick, B., Berman, K.F. (2024, May) *White Matter Integrity and Symptom Severity in People with Schizophrenia* [Poster presentation]. Society of Biological Psychiatry Annual Meeting, Austin, TX, United States.

Rhoads, C.A., Eisenberg, D.P., Kohn, P.D., Zoltick, B., Tong, Y., Gregory, M.D., Bettina, J.S., Recto, C.A., Wilder, I.M., **Mann, N.S.**, Chavannes, A.S., Berman, K.F. (2024, May) *Neurochemical Correlates of Schizophrenia Rare Coding Variant Gene Expression* [Poster presentation]. Society of Biological Psychiatry Annual Meeting, Austin, TX, United States.

Mann, N., Smith, J., Shackman, A., Orth, R.D., Savage, G., McCarthy, J.M., Coan, J.A., Blanchard, J.J. (2023, April 5). *Influence of Motivation and Pleasure on Social Regulation of Anxiety in Individuals with Psychosis: A Heart Rate Variability Study* [Poster presentation]. Graduate Research Appreciation Day at University of Maryland, College Park, MD, United States.

Ritchey, K. & **Mann, N.** (2022, April 21). *Reducing Stigma Through Text* [Poster presentation]. Midwestern Psychological Association Conference, Chicago, IL, United States.

RESEARCH PUBLICATIONS

(In progress) **Mann, N.**, Kim, H.C., Hur, J., Smith, J., DeYoung, K.A., Anderson, A.S., Kuang, J., Tillman, R.M., Kuhn, M., Fox, A.S., and Shackman, A.J. (tentative 2025). Similar Yet Different: Discovering the Big Secret Behind Fear and Anxiety. *Frontiers for Young Minds*.

- Current responsibilities: Condensing the publication “Anxiety and the Neurobiology of Temporally Uncertain Threat Anticipation (2020)” from the authors above, not including myself, into a 1,000-word,

child-friendly language format; creating digestible neuroscience graphics using Adobe Illustrator to explain data collection methods and results about fear and anxiety in the brain for children 8-15 years old.

CLINICAL EXPERIENCE

OAKLAWN PSYCHIATRIC CENTER, GOSHEN, IN

INPATIENT UNIT FOR ACUTE CRISIS AND SEVERE MENTAL ILLNESS

Mental Health Technician under the supervision of Paige Kemper, CRNP

May 2021-August 2022

Responsibilities:

- Led and facilitated educational group meetings with patients to increase positive coping skills.
- Observed patient behaviors and mental status and notified psychiatric nurses of unusual or potentially dangerous occurrences.
- Documented behaviors and mental status of patients based on one-to-one conversations during each shift to create shift notes.
- Helped patients with meals, activities of daily living (ADLs) and escorted patients from unit to meals, activities, and visitation areas to maintain standard of safety and security.
- Identified behaviors that necessitated intervention and obtained assistance from qualified personnel to complete intervention.
- Engaged with colleagues in treatment team meetings to promote positive patient treatment outcomes.
- Deescalated verbally and physically violent situations arising from patients on the unit.

TEACHING EXPERIENCE

BALL STATE UNIVERSITY, MUNCIE, IN

DEPARTMENT OF PSYCHOLOGICAL SCIENCE – COURSE: INTRODUCTION TO NEUROSCIENCE

Teaching Assistant under the supervision of Dr. Nilou Assar Lueke

January 2020-May 2021

- Responsibilities: Provided constructive feedback for students on exams & weekly assignments, met with students individually to discuss grades, offer study tips and answer questions about the course; communicated with students about class expectations and violations of those expectations.

VOLUNTEER AND SHADOWING EXPERIENCES

CRISIS TEXT LINE

ACUTE CRISIS INTERVENTION SERVICE

Volunteer under the guidance of rotating crisis text coach

March 2024-Present

- Engage with individuals in crisis via a text platform 2x/week for 2 hours using nonjudgemental listening and communication to help them calm from crisis; give outside resources when necessary.
- Notify supervisor when person's life is in immediate danger and only when attempts have been made to calm the individual.

NATIONAL INSTITUTES OF MENTAL HEALTH

NEURODEVELOPMENTAL AND BEHAVIORAL PHENOTYPING SERVICE

Shadowed clinical psychologists, Drs. Ivy Giserman-Kiss, Ph.D and Lisa Joseph, Ph.D.

- Observed psychosocial and neuropsychological evaluations of patients with CLN-3 Batten Disease and patients with Gaucher Disease and Autism Spectrum Disorder who presented severe intellectual disabilities and behavioral challenges.

ASSESSMENT EXPERIENCE

Neuropsychological Measures

- Delis-Kaplan Executive Function System (D-KEFS)
- Differential Ability Scales – Second Edition (DAS-II) School-Age Form
- Expressive Vocabulary Test – Second Edition (EVT-2)

- Kaufman Brief Intelligence Test – Second Edition (KBIT-2)
- NIH Toolbox Cognition Battery
- Peabody Picture Vocabulary Test – Fourth Edition (PPVT-4)
- Wechsler Adult Intelligence Scale – Revised (WAIS-R)
- Wechsler Abbreviated Scale of Intelligence – First Edition (WASI)
- Wechsler Abbreviated Scale of Intelligence – Second Edition (WASI-II)
- Wide Range Achievement Test (WRAT)

CLINICAL WORKSHOPS AND COURSES ATTENDED

Hayes, S. (2019, June 1). *Acceptance and Commitment Therapy (ACT) Immersion: An Introduction to ACT as a Process-Based Therapy*.

House, A. (2023, November 10). *Integrating ACT and DBT for Clients at Risk of Suicide*.

Luk, J. (2023, December 14). *Utilization of Dialectical Behavioral Therapy Skills Training to Treat Alcohol Use Disorder*.

Johnson, D. (2024, October 11). *Substance Use Disorders in Context: Using Acceptance and Commitment Therapy to Reduce Substance Use Stigma and Promote Meaningful Change*

ADDITIONAL SKILLS & *CERTIFICATIONS

- AFNI software
- SPM12
- Linux coding
- R Studio
- E-prime
- MATLAB
 - EEG data cleaning and analyses
 - Coding for statistical analyses
- *Crisis Intervention Training (CPI)
- *Mental Health First Aid
- SPSS & Jamovi
- Qualtrics
- *Advanced first aid, CPR & AED
- *CITI Training

PROFESSIONAL AFFILIATIONS

ASSOCIATION OF CONTEXTUAL BEHAVIORAL SCIENCE (ACBS)

SOCIETY OF BIOLOGICAL PSYCHIATRY (SoBP)

PSI CHI, THE INTERNATIONAL HONOR SOCIETY IN PSYCHOLOGY